

Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims in the application:

1. (Currently Amended) An automatic method for communication among mobile units, comprising the processing acts in a mobile unit of:
 - acquiring information from another mobile unit through a physical network;
 - registering a mobile unit as a member of a virtual logic network if the mobile unit satisfies a predetermined membership condition associated with the virtual logic network by referring to the acquired information of the mobile unit;
 - monitoring at least one of the vehicle environment and a condition associated with a mobile unit for a predetermined event; and
 - automatically selecting an appropriate virtual logic network according to a monitored event when the event takes place, selecting a communicating party from among the members of the selected virtual logic network, and communicating with the selected party.
2. (Original) The method for communication among mobile units according to Claim 1, wherein
 - the act of registering a member creates a member table for registering members of networks in association with the virtual logic networks and also creates a resource table for registering a capability of each member, and
 - the act of selecting a communicating party further comprises using the member table of the virtual logic networks and the resource table to perform communication with the selected party.
3. (Original) The method for communication among mobile units according to Claim 1, wherein the physical network is formed by exchanging predetermined information among vehicular communication apparatuses mounted in individual vehicles.

4. (Original) The method for communication among mobile units according to Claim 3, wherein the predetermined information includes at least the identity and position of a mobile unit.

5. (Currently Amended) An automatic method for communication among mobile units, comprising the processing acts in a mobile unit of:

acquiring information from another mobile unit through a physical network;

defining a plurality of virtual logic networks, wherein each virtual logic network is associated with a different predetermined condition for membership;

registering a mobile unit as a member of a virtual logic network if the mobile unit satisfies the predetermined membership condition associated with the virtual logic network by referring to the acquired information of the mobile unit;

monitoring at least one of the vehicle environment or situation of a driver or a vehicle;

automatically selecting one virtual logic network from among the plurality of virtual logic networks on the basis of an environment or situation change; and

setting the selected virtual logic network as an active network.

6. (Original) The method for communication among mobile units according to Claim 5, wherein the act of registering members further comprises:

receiving information for specifying a mobile unit identity and a condition from a mobile unit, and

referring to the received information, and if the mobile unit satisfies any one of various conditions, then registering the mobile unit as a network member of a virtual network based on the condition.

7. (Original) The method for communication among mobile units according to Claim 4, wherein the act of registering members further comprises registering the capabilities of members in virtual logic networks to which they belong in association with the network members.

8. (Original) The method for communication among mobile units according to Claim 7, wherein a member table for registering members of the networks and a

resource table for registering a capability of each member are created in association with virtual logic networks.

9. (Original) The method for communication among mobile units according to Claim 5, wherein a particular member is selected from among the members constituting the active network on the basis of an environment or situation change of the driver or vehicle or in response to a driver's request, and a connection to the selected member is established to communicate with the member.

10. (Currently Amended) A vehicular communication apparatus mounted in a vehicle to communicate with another mobile unit, comprising:

an information acquirer for acquiring information from another mobile unit through a physical network;

a registrar for registering, in a member table, a mobile unit as a member of a virtual logic network if the mobile unit satisfies a predetermined membership condition associated with the virtual logic network by referring to the acquired information of the mobile unit;

an environment/condition monitor for monitoring at least one of the vehicle environment or condition of a driver ~~or vehicle~~ for a predetermined event; and

a communicating party selector for automatically selecting a communicating party by using the table of the virtual logic networks according to a monitored event when the event takes place and communicating with the selected party.

11. (Original) The vehicular communication apparatus according to Claim 10, wherein

the registrar further creates a resource table for registering the capabilities of members in virtual logic networks to which they belong in association with the members, and

the communicating party selector carries out communication by using the member table of virtual logic networks and the resource table according to an event when the event takes place.

12. (Original) The vehicular communication apparatus according to Claim 10, comprising an inter-vehicle transmitter/receiver and an inter-vehicle controller.

13. (Original) The vehicular communication apparatus according to Claim 12, wherein the inter-vehicle controller has resource databases, such as a map database, a know-how database, a user profile database and an emergency database.

14. (Currently Amended) A vehicular communication apparatus mounted in a vehicle to communicate with another mobile unit, comprising:

- an information acquirer for acquiring information from another mobile unit through a physical network;

- a network definer for defining a plurality of virtual logic networks, wherein each virtual logic network is associated with a different predetermined membership condition for membership;

- a registrar for registering a mobile unit as a member of a virtual logic network if the mobile unit satisfies the predetermined condition associated with the virtual logic network by referring to the acquired information of the mobile unit;

- a monitor for monitoring at least one of the vehicle environment or situation of a driver ~~or a vehicle~~; and

- a communicating party selector for automatically selecting a particular virtual logic network from the plurality of virtual logic networks on the basis of an environment or situation change, setting the selected virtual logic network as an active network, and selecting a communicating party to effect communication with the selected party.

15. (Original) The vehicular communication apparatus according to Claim 14, wherein the registrar

- receives information for specifying a mobile unit identity and a condition from a mobile unit, and

- refers to the received information, and if the mobile unit satisfies any one of various conditions, then registers the mobile unit as a network member of a virtual network based on the condition.

16. (Original) The vehicular communication apparatus according to Claim 15, wherein

the registrar further registers the capabilities of members in virtual logic networks to which they belong in association with the individual network members.

17. (Original) The vehicular communication apparatus according to Claim 14, wherein

the registrar creates a member table for registering members of the networks in association with the virtual logic networks and also creates a resource table for registering a capability of each member.

18. (Original) The vehicular communication apparatus according to Claim 14, wherein the communicating party selector further selects a particular member from among the members constituting the active network on the basis of an environment or situation change of the driver or vehicle or in response to a driver's request, and establishes a connection to the selected member to communicate therewith.

19. (Previously Presented) A vehicular communication apparatus mounted in a vehicle to communicate with another mobile unit, comprising:

a sensor for detecting a physical condition of a driver in the vehicle;

a monitoring sensor for monitoring a condition in the vehicle;

a condition determiner for determining the condition of the driver on the basis of detection signals of the sensors;

an importance level determiner for determining an importance level regarding the necessity for communication with another mobile unit on the basis of the condition;

an information-to-be-sent decider for deciding on information to be sent on the basis of the importance level when it is determined necessary to communicate with another mobile unit; and

an information transmitter for wirelessly transmitting the information to be transmitted to another mobile unit.

20. (Original) The vehicular communication apparatus according to Claim 19, further comprising:

an information receiver for receiving information wirelessly transmitted;

an importance level determiner for determining the importance level of the received information; and

an information output unit for supplying the received information if it is determined that the received information should be supplied to a user.